

A2 At page 1, bridging page 2, the description of Figure 1 is rewritten as follows: "Figure 1: MHC class I molecules form clusters at T-cell/APC contact sites. Resting (A) or activated (B) CD8⁺ 2C T-cells were cultured with *Drosophila* APCs expressing L^d-GFP, B7-1 and ICAM-1 plus 10 μM QL9 or P1A peptides at room temperature. GFP fluorescence was analyzed immediately after adding T-cells to APCs in a ΔTC3 culture dish (Bioprotechs) using a confocal microscope system (Fluoview, Olympus). Left panels: L^d-GFP fluorescence. Middle panels: DIC (Differential Interference Contrast) images of T-cell/APC pairs. Right panels: overlay of L^d-GFP fluorescence and DIC images. (C) Resting CD8⁺ 2C T-cells acquiring L^d-GFP from *Drosophila* APCs (+QL9). Time-lapse imaging following L^d-GFP fluorescence in a T-cell/APC pair was carried out every 30 seconds. L^d-GFP fluorescence images taken at 5, 20 and 30 minutes respectively are shown in the left panels and the overlay images of L^d-GFP/ DIC are shown in the right panels. (D) Activated CD8⁺ 2C T-cell acquiring L^d-GFP from a *Drosophila* APC. Activated CD8⁺ 2C T-cells were pre-stained with 5 μM DiI (red) (Molecular Probes) before incubation with *Drosophila* APCs (+QL9). The images of a representative T-cell/APC pair are shown. (E) Acquisition of L^d-GFP from RMA.S cells (+QL9) by activated CD8⁺ 2C T-cells".

A3 At page 2, bridging page 3, the description of Figure 3 is rewritten as follows: "Figure 3: Internalization of APC-derived MHC class I molecules by T-cells. (A) Serial confocal images along the Z-axis of an activated 2C T-cell interacting with *Drosophila* APCs. CD8⁺ 2C T-cells were labeled with 5 μM DiI (red) and cultured with *Drosophila* APCs expressing L^d-GFP (green) plus QL9 peptides for 30 min. (B) Co-localization of L^d-GFP with DiI-labeled membrane vesicles. 2C T-cells were incubated with QL9-loaded RMA.S cells expressing L^d-GFP at 37° C for 2 hours. (C) L^d-GFP acquired by 2C T-cells is in the cytoplasm. Activated CD8⁺ 2C T-cells were pretreated with lysosomal protease inhibitors (100 μM Chloroquine and 50 μM E64) and cultured with *Drosophila* APCs expressing L^d-GFP plus the indicated peptides for 1 hour. They were then stained with biotinylated antibody specific for transferrin receptor, followed by Streptavidin-Cyt3 (PharMingen). (D) Intracellular co-localization of TCR and L^d-GFP in 2C T-cells. After being cultured with *Drosophila* APC expressing L^d-GFP plus QL9 or P1A peptide for 1 hour, 2C cells were intracellularly stained with a cocktail of biotinylated mAb for TCR (anti-CD3 ε, anti-TCR β and a clonalotypic mAb, 1B2) and subsequently with Streptavidin-Texas Red".

At page 3, the description of Figure 4 is rewritten as follows: "Figure 4: Endocytosis and degradation of APC-derived MHC class I molecules by T-cells. (A) Co-localization of L^d-GFP with transferrin (labeled as tf) and lysoTracker (labeled as ly) in 2C T-cells. Left panel images: activated CD8⁺ 2C T-cells were loaded with Texas red conjugated transferrin (5 µg/ml) and incubated with QL9 peptide loaded *Drosophila* APCs (L^d-GFP) at 37°C for 1 hour. Right panel images: activated CD8⁺ 2C T-cells were incubated with QL9 loaded RMA.S cells expressing L^d-GFP, stained with 5 nM lysoTracker Red DND-99 (Molecular Probes). (B) Inhibition of L^d-GFP on 2C cells by lysosomal inhibitors. Resting CD8⁺ 2C T-cells were cultured with *Drosophila* APCs expressing L^d-GFP plus QL9 peptides in the presence or absence of a cocktail of lysosomal inhibitors (25 mM NH₄Cl, 10mM Chloroquine and 10 µM E64). After culture for the indicated time, L^d-GFP fluorescence intensity on CD8⁺ 2C cells was analyzed by FACS. (C) Degradation of APC-derived MHC class I molecules in 2C T-cells. 2C T-cells were cultured with ³⁵S-methionine labeled L^d transfected L cells for the indicated times in the absence or presence of NH₄Cl and E64. Immunoprecipitation of L^d was performed as described in Fig. 2. The amount of L^d remaining was quantified by densitometry".

In the Claims:

Claim 1 is amended as follows:

- Sub C1/
- AS
- 1) (Amended) A method for the purification of antigen specific T cells, comprising:
 - a. contacting a MHC class I protein-fluorescent protein fusion molecule or a radiolabeled MHC class I protein, bound to a specific antigen with a population of T cells;
 - b. incubating the MHC class I protein bound to the specific antigen together with the population of T cells for a period of time sufficient for the T cells to internalize the MHC class I protein from the T cell surface; and
 - c. identifying the T cells that have internalized the MHC class I protein-fluorescent protein fusion molecule or the radiolabeled MHC class I protein.